## *Phelsuma comorensis* Boettger, 1913

**FAMILY:** Gekkonidae

**COMMON NAMES:** Comoros Day Gecko (English); Gecko diurne des Comores; Phelsume des Comores (French); Geco diurno de las Comores (Spanish)

**GLOBAL CONSERVATION STATUS:** Not yet assessed by IUCN.

**SIGNIFICANT TRADE REVIEW FOR:** Comoros

**Range State selected for review**

| Range State | Exports* | Urgent, possible or least concern | Comments |
|---|---|---|---|
| Comoros | 7802 | Least concern | Species locally common. High reproductive potential. No systematic population monitoring in place to determine non-detriment. |

* Excluding re-exports.

**SUMMARY**

*Phelsuma comorensis* is one of 30-40 species of day gecko in the genus *Phelsuma*. It is endemic to the island of Grand Comoro (Ngazidja) in the Comoros, where it generally occurs at higher altitudes (above 600 m or so). Like many other *Phelsuma* species it can evidently adapt well to habitat disturbance and is regularly recorded around human dwellings, in towns and elsewhere, often in banana plants.

Day geckos in general are popular as pets and among specialist collectors. Captive-bred individuals now also supply a considerable proportion of the market in consumer countries. Recorded exports from the Comoros of *P. comorensis* began in 2000, initially to Madagascar, evidently for re-export to consumer countries, and latterly largely to the USA. Around 8000 have been recorded as exported in total during the period 1994-2003, with a further 2600 recorded in 2004. Collection was reported in 2001 as concentrated in the northern part of Grand Comoro. There is no known local use of the species. *Phelsuma comorensis* appears to command an average price for day geckos in the retail market.

The overall size of the population is not known and no published population density estimates for this species have been located. However, like many other *Phelsuma* species, it can evidently adapt well to human disturbance and is at least locally common, although it occupies a relatively small global range. Given the potential reproductive rate of the species and the absence of local use, it is very unlikely that an export of 2,000-3,000 animals a year will have a significant impact on the wild population, even if there is substantial mortality between collection and export. International trade in the species is thus considered as of least concern. Nevertheless it appears that the wild population is not monitored, no quotas are set and no information has been found on whether non-detriment findings have been established and if so, on what basis. The situation should be re-reviewed if any significant changes in trade are noted.

**SPECIES CHARACTERISTICS**

*Phelsuma comorensis* is one of 30-40 species of day gecko in the genus *Phelsuma*. It is a relatively small day-gecko, reaching around 12 cm in total length, endemic to the island of Grand Comoro (Ngazidja) in the Comoros, western Indian Ocean where it is reportedly found at higher altitudes (above 600 m) (Edwards, 2001), suggesting an area of occurrence of some 200-300 $km^2$. The species is often recorded in banana plants around human habitations and is largely insectivorous although also takes nectar, pollen and plant exudates (Anonymous undated; Edwards, 2001). Females lay clutches of two eggs that hatch after an incubation period of 33-45 days (Christenson and Christenson, undated).

Most *Phelsuma* species can lay multiple clutches following a single mating, and may reach maturity in a year or less.

The global conservation status of *Phelsuma comorensis* has yet to be assessed by the IUCN Global Reptile Assessment. Because, like many other *Phelsuma* species, it can evidently adapt well to human disturbance and is at least locally common, it is unlikely to be currently threatened with extinction, despite its relatively small global range. The overall size of the population is not known and no published population density estimates for this (or indeed any other) *Phelsuma* species have been located. However, ecologically similar species of *Anolis* in the Neotropics have been shown regularly to reach densities of many hundreds to several thousands of individuals per hectare (Rodda *et al.*, 2001; Stamps *et al.,* 1997). Observation indicates that the more adaptable *Phelsuma* species, such as *P. comorensis*, may achieve similar population levels at least locally (author's observations, Edwards, *in litt.,* 2006). The area of occurrence of the species is over 200 km$^2$. Even if only a small proportion of this is actually occupied at such densities, the population is likely to be at minimum several hundred thousand animals and more likely several million.

**INTERNATIONAL TRADE**

Day geckos in general are popular as pets and among specialist collectors in Europe, North America and, to some extent, Asia, particularly Japan. The genus *Phelsuma* itself occurs in the Indian Ocean region, with a centre of diversity in Madagascar (20-30 species) and a few species occurring on the other island groups in the region including the Comoros, Seychelles and Mascarenes (Anoymous, undated, Glaw and Vences, 1994). One species (*Phelsuma dubia* q.v.) occurs on mainland Africa, very likely as a result of accidental human introduction, and one as far east as the Andaman Islands. A few species are now established as feral populations in other parts of the world, such as Hawaii and Florida, U.S.A. The entire genus was included in Appendix II of CITES in 1977. Historically, Madagascar has been the source of most of the day geckos in international trade, with exports of tens of thousands annually reported in the late 1980s and early 1990s (Jenkins and Rakotomanampison, 1994). However, since 1994 the CITES Standing Committee has recommended that importing countries do not accept commercial imports from Madagascar of any *Phelsuma* species except for *P. laticauda, P. lineata, P. madagascariensis* and *P. quadriocellata*, for each of which annual quotas of 2000 specimens a year have been established. This has probably led to increased demand for *Phelsuma* species from other countries. Captive-bred individuals now also supply a considerable proportion of the market in consumer countries.

**Table 1: Exports* excluding re-exports of live wild *Phelsuma comorensis*, 1994-2003**

| Export Country | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Comoros | 0 | 0 | 0 | 0 | 0 | 0 | 3898 | 2410 | 1044 | 450 | **7802** |

(Source: CITES trade statistics derived from the *CITES Trade Database*, UNEP World Conservation Monitoring Centre, Cambridge, UK.)

*Based on a review of comparative tabulations, which showed significant double counting within gross export data, reported imports were used as the basis for trade analysis.

**COUNTRY ACCOUNT**

**Comoros (CITES Party since 1995)**

**Status:**

The overall size of the population is not known and no published population density estimates for this although believed to be locally common, found at higher altitudes (above 600 m), suggesting an area of occurrence of some 200-300 km$^2$.

**Management and trade:**

Around 8000 specimens of wild origin have been recorded in trade in the period 1994-2003, all since 2000 from the Comoros with the exception of 290 recorded by the USA in 1994 as imported from

Madagascar (where the species does not occur). The Comoros did not become a Party to CITES until 1995.
Exports showed a decreasing trend from 2,000 to 2003: in 2,000, just under 4,000 were recorded in trade, most (2,800) to Madagascar and Germany (870). In 2001, just over 2,400 were exported, virtually all to the USA. Recorded exports dropped to around 1,000 in 2002 and 450 in 2003, again virtually all to the USA. However, in 2004 exports increased again, with some 2,600 recorded as exported, almost all to the USA**.**

Specimens for export of this species, along with *Phelsuma dubia* and *Furcifer cephalolepis* (q.v.), are reportedly collected around the town of Maweni in the north (Edwards, 2001). There is no reported local use of the species. No other threats to the species have been identified.

The species is not known to be covered by any national legislation. No export quotas are known to have been set, nor are any non-detriment findings known to have been made.

Given that the species is locally common, the potential reproductive rate is high and the absence of local use, it is very unlikely that an export of 2,000-3,000 animals a year will have a significant impact on the wild population, even if there is substantial mortality between collection and export. The species is thus considered as of Least Concern. The situation should be re-reviewed if any significant changes in trade are noted

## REFERENCES


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